بسم الله الرحمن الرحيم

عنوان المحاضرة: Ovarian – Endometrial Tumors

تاريخ المحاضرة : 18/2/2013

المحاضر :د.أحمد طلعت

Ovarian Cancer:

Epidemiology: (How Common is ovarian Cancer in females?) (MCQ)

- **The 5th Most Common cancer in ♀ (1-Lung CA 2-Breast CA 3-Cholonic CA 4-Blood CA)**
- **Life time risk = 1:70 (Breast CA = 1:12)**
- **± 7000 new cases/year → ± 4500 deaths/year ■ 85% > 50 yrs**

Silent Killer: Always presented in the late stages

Risk factors for Ovarian Cancer

A) Non-adjustable ●Female ● Age ●Family/genetic ●Infertility

B) Adjustable:

●Screening: 1-Pelvic exam 2-Tumor markers (e.g. CA125) 3-USS

●Medications: Oral contraceptives (But Increased risk of breast cancer)

●Surgery: 1-Salpingo-oophorectomy 2-Tubal ligation 3-Hysterectomy

Tubal ligation & Hysterectomy are performed after a woman has completed childbearing and they should not be performed solely for ovarian cancer risk reduction.

The Majority of cases of ovarian cancer are presented by (Massive ASCITES) d.t. Metastasis

---

Screening in asymptomatic women (Useful or not ?)

1-Pelvic examination 2-Ultrasound scanning 3-Serum tumour markers - CA125

4-Doppler USS (↑ Vascularization) 5-CT scan

Screening trials had NO impact on mortality from Ovarian cancer:

- **Anatomic location of the ovary ➡ not easily accessible**
- **Lack well defined precursor lesion and has poorly defined natural history**
- **Low prevalence ➡ need exquisite specificity to avoid unnecessary intervention**
- **Lack of a good method**

False positives: (high markers but doesn't mean ovarian cancer)

↑ Serum CA125 are associated with:

1-Malignant tumours of the ovary, pancreas, breast, lung, and colon

2-Menstruation – Pregnancy - endometriosis – PID - liver disease

3-Ascites, pleural or pericardial effusions 4-Recent laparotomy

False Negatives: (خطر جدا إنك تنفي السرطان اعتمادا عليه بس)

1-CA-125 is negative (<35 U/mL) in ± 50% of patients with stage 1 ovarian cancer.

2-Ultrasound relies on a mass and can miss small volume tumors

---

Diagnostic tools: (for any cancer)

■Clinical: non-specific symptoms – Pelvic mass

■Radiological: USS – CT scan

■Biochemical: serum CA125/CEA

■Laparoscopy/Laparotomy: Histology – cytology

Risk of Malignancy Index (RMI):

Features	RMI Score
A) Ultrasound features: 1-Multi-locular cyst 2-Solid areas 3-bilateral lesions 4-Ascites 5-intra-abdominal metastases	0= none 1= one abnormality 3= two or more abnormalities
B) Menopausal score	1= Pre-Menopausal 3= Post-Menopausal
C) Serum CA125 level	……….U/ml

RMI score = Ultrasound score x Menopausal score x CA125 level in U/ml.

Risk	RMI	Risk of Cancer
Low	<25	3%
Moderate	25-250	20%
High	>250	75%

All high risk cases should be managed by A Gyne-onchologist

Ovarian Cancer (FIGO Staging):

Stage I - Growth limited to the ovaries Ovary removal دي المرحلة اللي نتمنى نكتشف فيها علشان العلاج بس

Stage II - Growth involving one or both ovaries with pelvic extension

Stage III - Tumour involving one or both ovaries with histologically confirmed peritoneal implants outside the pelvis and/or positive retroperitoneal or inguinal nodes.

Stage IV - Involving one or both ovaries with distant metastases (LLBB → Liver, Lung, Brain, and Bone)

5-year survival rates: (MCQ):

Stage I ►95% Stage II ► 65% Stage III ► 30% Stage IV ► 15% Overall ► 30%

Principles of treatment of Apparent Early disease:

1-MID-LINE INCISION (no other incision allowed)

2-Assessment of peritoneal cytology, hysterectomy, removal of ovaries and Fallopian tubes and infracolic omentectomy should be performed

3-AVOID Capsular rupture during surgery 4-Remove the affected organ with clear margins

5-In women who wish to conserve their fertility a unilateral Salpingo-oophorectomy may be performed if the contralateral ovary appears normal and the risk of recurrent disease developing must be discussed thoroughly.

**(Sandwich Regimen = Chemo then Surgery then Chemo)

Primary optimal cytoreductive surgery where residual tumor deposits are no more than 1 cm in diameter + Adjuvant Chemotherapy

Chemotherapy: 1-Carboplatin (no Side Effects, Mickey Mouse) 2-Paclitaxel

Palliative treatment: Symptomatic TTT to improve quality of life

Gynecological cancer risk in patients with genetic mutations:

Mutation	Ovarian CA Risk
BRCA1	50%
BRCA2	27%
Lynch Syndrome	12%

Risk reducing surgery in BRCA1/2 Carriers:

*Prophylactic bilateral mastectomy 90% ► reduction in breast CA risk

*Prophylactic bilateral oophorectomy <40 yrs ►

- 95% reduction in ovarian CA risk (not 100%)
- 50% reduction in breast CA risk

Peritoneal cancer following prophylactic bilateral oophorectomy ► ~5% (not 0%)

Ovarian cancer in young patients: ► Likely to be **Germ cell tumour**
Rare (5% of all ovarian malignancy)
- ●**Dysgerminomas** ➡ secrete LDH ●**Teratomas** ➡ secrets Thyroxine
- ●**Granulosa cell tumour** ➡ secretes inhibin ●**Embryonal carcinoma** ➡ secretes AFP
- ●**Choriocarcinoma** ➡ secretes hCG

Endometrial Cancer:
Incidence increasing (d.t. hormone replacement therapy and ↑ screening)
●**3700 cases/yr** ●**Age group**: 60-70 yrs ●**The majority** → present in early stages
Aetiology: (↑ESTROGEN)
A) Exogenous: 1-Hormone Replacement Therapy 2-Tamoxifen (TTT of Breast CA)
B) Endogenous:
1-Obesity: d.t. peripheral conversion of Androgen to Estrogen (Estrone E1Ss) (**MCQ**)
2-PCOS (Polycystic ovary syndrome) 3-Delayed menopause - Early menarche
4-Estrogen secreting tumours of the ovary (e.g. Granulosa cell tumor)
5-Diabetes / Hypertension
Presentation:
Symptoms:
1-PMB (post-menopausal bleeding) واحدة عندها 60 سنة والدكتور يغلط ويقولها ده طبيعي دي الدورة كده هتقطع
2-Perimenopausal bleeding 3-Vaginal discharge
Signs: 1-Often none 2-Bulky uterus
Investigations for patients with PMB:
1- Pelvic ultrasound (ET >5mm) 2- Out-patient endometrial biopsy 3- Hysteroscopy and biopsy
Risk of Endometrial cancer in women with PMB (not on HRT):
●Pre-test risk = 10% ●Post-test risk (ET > 3mm) = 20% ●Post-test risk (ET < 3mm) = 1%
Pre-operative Assessment:
*Aim:
●Exclude distant metastasis staging ●Determine extent of surgery ●Fitness for surgery
*Assessment:
●Examination ●Chest X-ray ●CT/MRI scan Abdomen/pelvis
●Bloods ► Haematology - Biochemistry screen
Spread of the endometrial cancer:
a) Adjacent Structures: (Tubal – Ovarian – Vaginal)
b) LNs: (Lateral pelvis → Internal iliac → Para-aortic)
Staging and Grading (FIGO):
A) Staging (Extend of the Cancer)
Stage I. Cancer is limited to the uterus. Stage II. Cancer involves the uterus and cervix.
Stage III. Cancer has spread out of the uterus but limited to pelvic region.
Stage IV. Cancer has spread to the bladder, bowel, or other distant locations.
B) Grading (How active is the cells)
●Grade 1 ►Well-differentiated ●Grade 2►Moderately-differentiated ●Grade 3►Poorly-differentiated
Treatment: Surgery
TAH/BSO/washings → can be curable in early stages
(Total Abdominal Hysterectomy and Bilateral Salpingo-Oophorectomy)
Post-op radiotherapy → when disease spread into outer muscle of uterus/cervix involvement
ـأي حاجة بره الـPelvis تآخد chemo وأي حاجة جوه الـPelvis تآخد Radio بعد الـSurgery

Types of Hysterectomy (د كمال عبد الحميد)

***Radical Hysterectomy**: Uterus + Cervix + Upper part of the Vagina (± pelvic lymphadenectomy)

***Total Hysterectomy**: Uterus + Cervix

***Pan Hysterectomy**: Uterus + Cervix + Tubes + Ovaries

-If patient not fit for operation give her Progesterone (Mirena Coil)

5-Year survival rate:

Stage I ► 90%   Stage II ► 60%   Stage III ► 40%   Stage IV ► 5%

Prevention:

a) **Oppose the exogenous Oestrogen** (HRT - Tamoxifen): Progesterone – Oral or Mirena coil - OCPs

b) **Control the Endogenous Oestrogen:** Control Obesity / Diabetes / Hypertension

c) **Early detection:** Report warning symptoms – PMB/discharge

---